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Remarks

A. Basis for claim amendments

Basis for the amendments to claim 1 include paragraphs [0029], [0055], [0069], [0070], and [0071] of the published specification.

Basis for new claim 3 includes paragraphs [0034] and [0035] of the published specification.

Basis for new claim 4 includes paragraph [0037] of the published specification.

B. The legal standard

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.

Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

C. The JP '855 reference

On page 2 of the Office Action, claims 1 and 2 were rejected under 35 U.S.C. 102(b) as being anticipated by Kukumoto et al., JP 9-12855.

C.1. The scope and content of the JP '855 reference

The JP '855 reference discloses a thermoplastic resin composition comprising a composite rubber (particles) and an aromatic polycarbonate resin, wherein the composite rubber (particles) comprises a polyorganosiloxane rubber (A) and a poly(alkyl (meth)acrylate) rubber (B) which permeate each other to have a network structure.

The polyorganosiloxane rubber (A) is produced from 50 wt % or more (preferably 70 wt % or more) of an organosiloxane, 0.1 to 30 wt % of a crosslinking agent (e.g. tri- or tetraalkoxysilane) and 0 to 10 wt % of a graft-

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crossing agent (e.g. methacryloxypropyltrimethoxysilane).

The average particle diameter of the composite rubber (particles) is in the range of 0.08 to 0.6 µm.

The composite rubber (particles) is produced by a process including the steps of: synthesizing a latex of the polyorganosiloxane rubber (A) by emulsion polymerization; immersing the latex into a monomer; and carrying out polymerization. This process may correspond to a process as in the present invention in which polysiloxane particles (seeds) are made to absorb a vinyl monomer. However, it is not disclosed that the monomer is emulsified in advance.

The organosiloxane, which is used as a raw material of the polyorganosiloxane rubber (A), is exemplified by difunctional and 3- or more membered cyclic compounds.

As to the use of the resin composition, JP '855 does not disclose light diffusion.

C.2. The differences between the scope and content of the JP '855 reference and the claims

Independent claim 1 requires the step of emulsifying a polymerizable monomer prior to making particles having said polysiloxane framework absorb the polymerizable monomer. As indicated above, the JP '855 reference fails to disclose this step. Since a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference, the JP '855 reference does not anticipate independent claim 1.

D. The Sakai et al. references

On page 3 of the Office Action, claims 1 and 2 were rejected under 35 U.S.C. 102(b) as being anticipated by Sakai et al., U.S. Patent Number 5,580,619 or Sakai et al.

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U.S. Patent Number 5,503,932.

D.1. The scope and content of the Sakai et al. references

The Sakai et al. references disclose organic-inorganic-composite particles which include an organic polymer framework (B) ((meth)acrylic resin framework) and a polysiloxane framework (A), wherein the frameworks (A) and (B) are bonded together through an Si atom.

The quantity of SiO₂ which constitutes the polysiloxane framework (A) is 25 wt % or more. The proportion of polysiloxane in the organic-inorganic-composite particles is preferably 70 wt % or more (e.g. column 8, lines 38-40 and column 15, lines 54-57 of Sakai '932).

The organic polymer framework (B) may, for example, include "vinyl polymers" (e.g. column 10, line 62 to column 11, line 9 of Sakai '932).

A process for producing the organic-inorganic-composite particles comprises the steps of: carrying out hydrolysis-condensation of a silicon compound having a polymerizable group; and thereafter carrying out radical polymerization. When the radical polymerization is carried out, a radically polymerizable monomer may be included (e.g. column 23, lines 39-41 of Sakai et al. '932). However, the Sakai et al. references fail to disclose making polysiloxane particles absorb the polymerizable monomer.

As to the working examples as disclosed in the Sakai et al. references, in Example B3 of Sakai et al. '932, γ-methacryloxypropyltrimethoxysilane (Si compound) and divinylbenzene (radically polymerizable vinyl monomer) are used in a ratio of 9:1. However, they are charged into a reactor in a lump sum, and polymerization is carried out during the hydrolysis-condensation. In the other Example of

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Sakai et al. '932, only an Si compound is used.

In Sakai et al. '932, the limitation of the SiO_2 content to 25 wt % or more means that whether the polymerizable silicon compound is used alone or jointly with another polymerizable monomer, the amount of the polymerizable silicon compound being used is controlled. For example, the theoretical SiO_2 content in $\text{RSiO}_{1.5}$ particles (R: γ -methacryloxypropyl group) is 33 wt %, as obtained in the case of completely hydrolyzing and condensing γ -methacryloxypropyltrimethoxysilane (polymerizable silicon compound) being used in Example B3 of Sakai et al. '932. Such theoretical SiO_2 content is calculated as follows:

(molecular weight of SiO_2) / (molecular weight of $\text{RSiO}_{1.5}$)

or 60/179 or 33 wt %.

Incidentally, in the case of no hydrolysis-condensation, such theoretical SiO_2 content is calculated as follows:

(molecular weight of SiO_2) /
(molecular weight of γ -methacryloxypropyltrimethoxysilane)

or 60/248 or 24 wt %.

In addition, in Example B3 of Sakai et al. '932, a polymerizable silicon compound (γ -methacryloxypropyltrimethoxysilane) is used jointly with another polymerizable monomer (divinylbenzene), but the ratio of such other polymerizable monomer (divinylbenzene) to the polymerizable silicon compound (γ -

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methacryloxypropyltrimethoxysilane) is only 1/9.

Therefore, Sakai et al. '932 does not intend the claimed emulsification of a polymerizable monomer which is a useful technique for making particles having a polysiloxane framework absorb the polymerizable monomer.

D.2. The differences between the scope and content of the Sakai et al. references and the claims

Independent claim 1 requires the step of emulsifying a polymerizable monomer prior to making particles having said polysiloxane framework absorb the polymerizable monomer. As indicated above, the Sakai et al. references fail to disclose this step. Since a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference, neither of the Sakai et al. references anticipates independent claim 1.

E. The JP '714 reference

On page 3 of the Office Action, claim 1 was rejected under 35 U.S.C. 102(b) as being anticipated by JP 2003-98714.

Further on page 3 of the Office Action, it was stated that "A full written translation of this document has been requested to verify whether instant claim 2 is also anticipated." Thus, it appears that the Examiner is ordering a translation from a department within the USPTO. However, applicant is attaching to this Amendment and Remarks a full translation of JP 2003-98714 (87 pages). It should be noted that production methods for the polyorganosiloxane represented by general formula (I) on page 3 are described on pages 39-46 of the translation.

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E.1. The scope and content of the JP '714 reference

The polysiloxane disclosed in JP '714 is linear and not network-structured as in the present invention. JP '714 fails to disclose making the polysiloxane absorb a monomer. The particles disclosed in JP '714 are substantially agglomerated particles.

E.2. The differences between the scope and content of the JP '714 reference and the claims

Independent claim 1 requires the step of emulsifying a polymerizable monomer prior to making particles having said polysiloxane framework absorb the polymerizable monomer. As indicated above, the JP '714 reference fails to disclose this step. Since a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference, the JP '714 reference does not anticipate independent claim 1.

F. The Koloski et al. reference

On page 3 of the Office Action, claim 1 was rejected under 35 U.S.C. 102(b) as being anticipated by Koloski et al., U.S. Patent Number 6,548,590.

F.1. The scope and content of the Koloski et al. reference

The Koloski et al. reference discloses a composite where an inorganic or organic material (B) is composited in a polymer matrix (A). As to the polymer matrix (A), at least a part thereof is amorphous, and the polymer matrix (A) has a modified moiety (functional moiety). The material (B) has in its molecule a first functional group capable of interacting with the modified moiety of the polymer matrix

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(A) and a second functional group bonded to a functionalized compound as a third component (e.g. dye molecule, metal-containing antibacterial agent, et.).

The Koloski et al. reference also discloses a composite where a linear diorganopolysiloxane (B) is composited in a polymer matrix (A).

The Koloski et al. reference teaches in column 27, line 30 that a particulate composite is useful as a UV absorbing agent.

From the process as disclosed in the Koloski et al. reference for producing the composite, it is inferred that the composite is made particulate by a process including the steps of synthesizing a bulk of a composite and breaking it down. (In contrast, a composite is built up in the present invention.) However it cannot be considered that such a process gives micron-sized particles having a narrow particle diameter distribution or a uniform spherical shape as in the present invention.

In addition, the composite of the Koloski et al. reference is anything but (falls far short of) a network structure. A network structure is a non-linear structure. The Koloski et al. reference teaches a linear structure.

F.2. The differences between the scope and content of the Koloski et al. reference and the claims

Independent claim 1 requires a the polysiloxane framework to have a network structure, and thus the organic-inorganic-composite particle also must have this network structure. In contrast, as indicated above, the Koloski et al. reference falls far short of a network structure. Since a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference, the Koloski et

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al. reference does not anticipate independent claim 1.

G. The double patenting rejection

On page 4 of the Office Action, claim 1 was rejected on the ground of nonstatutory double patenting over claims 1 and 6 of U.S. Patent Number 5,503,932.

MPEP 804 provides as follows:

One significant difference is that a double patenting rejection must rely on a comparison with the claims in an issued or to be issued patent, whereas an obviousness rejection based on the same patent under 35 U.S.C. 102(e)/103(a) relies on a comparison with what is disclosed (whether or not claimed) in the same issued or to be issued patent. In a 35 U.S.C. 102(e)/103(a) rejection over a prior art patent, the reference patent is available for all that it fairly discloses to one of ordinary skill in the art, regardless of what is claimed. *In re Bowers*, 359 F.2d 886, 149 USPQ 570 (CCPA 1966).

Here U.S. Patent No. 5,503,932 is eligible prior art under 35 U.S.C. 102(b). Therefore, the disclosure (including the claims) is what is relevant for an obviousness analysis.

The conventional standard for obviousness or nonobviousness is still the standard, as affirmed by the Supreme Court of the United States in KSR International Co. v. Teleflex Inc. et al., 550 U. S. ____ (2007) as follows on page 2 of the slip opinion:

In *Graham v. John Deere Co. of Kansas City*, 383 U. S. 1 (1966), the Court set out a framework for applying the statutory language of §103, language itself based on the logic of the earlier decision in *Hotchkiss v. Greenwood*, 11 How. 248 (1851), and its progeny. See 383 U. S., at 15-17. The analysis is objective:

"Under §103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background the obviousness or nonobviousness of the subject matter is determined. Such secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented." *Id.*, at 17-18.

While the sequence of these questions might be reordered in any particular case, the factors continue to define the

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inquiry that controls. If a court, or patent examiner, conducts this analysis and concludes the claimed subject matter was obvious, the claim is invalid under §103.

The scope and content of the Sakai et al. references, including Sakai et al. '932, has been reviewed above. This review shows that the scope and content of the Sakai et al. references do not include the following claimed difference: independent claim 1 requires the step of emulsifying a polymerizable monomer prior to making particles having said polysiloxane framework absorb the polymerizable monomer. It is respectfully submitted that one of ordinary skill in the art would not be expected to make up this difference and that thus independent claim 1 is nonobvious over the Sakai et al. '932 reference. Hence, it is respectfully submitted that no terminal disclaimer is necessary.

H. Housekeeping matters

H.1. Period For Reply

This Amendment and Remarks is being filed in response to the Office Action of June 22, 2007. June 22, 2007 plus three months is September 22, 2007. September 22, 2007 falls on a Saturday. This paper is being filed on or before Monday, September 24, 2007.

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H.2. Status

The Office Action of June 22, 2007 was nonfinal.

H.3. Disposition Of Claims

Claims 1-4 are pending.

H.4. Application Papers

This case includes no drawings.

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H.5. Priority under 35 U.S.C. §§ 119 and 120

As to foreign priority, acknowledgment of the claim for foreign priority was made in the Office Action dated June 22, 2007. This is appreciated.

Further as to foreign priority, acknowledgment of the receipt of the priority document was made in the Office Action dated June 22, 2007. This is appreciated.

As to domestic priority, this case does not claim domestic priority.

H.6. Attachments

Applicant has filed two PTO-1449 forms in this case (one with the filing of this case on September 12, 2005 and one on August 18, 2007).

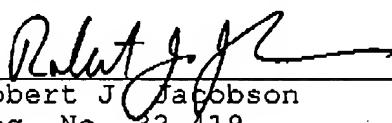
The PTO-1449 form filed on September 12, 2005 has been initialed, signed and returned.

The PTO-1449 form filed on August 18, 2007 was, of course, filed after the mailing of the outstanding Office Action of June 22, 2007. Consideration of the prior art listed on such form and return of this form would be very much appreciated.

I. Conclusion

Applicant respectfully submits that the present application is now in condition for allowance. The Examiner is respectfully invited to make contact with the undersigned by telephone if such would advance prosecution of this case.

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